

REMARKS

Favorable reconsideration and allowance of the claims of the present application are respectfully requested.

Before addressing the specific grounds of rejection raised in the outstanding Office Action, applicants have corrected an obvious typographically error appearing in the present application on Page 1. Entry of the amendment to the specification is respectfully requested.

In the outstanding Office Action, Claim 10 is rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Specifically, the Examiner alleges that the original claim includes two sentences.

In response thereto, applicants have amended Claim 10 by rewriting the claim in a single sentence. This amendment to Claim 10 obviates the indefiniteness rejection raised in the outstanding Office Action. As such, reconsideration and withdrawal of the rejection to Claim 10 under 35 U.S.C. § 112, second paragraph are respectfully requested.

In addition to the above amendment to Claim 10, applicants have also amended Claim 1 to positively recite that the sonochemically aminated 1,3,5-triamino-2,4,6-trinitrobenzene (TATB) is deposited *in an amount of less than 15 % by weight* onto secondary explosive crystals. Support for this amendment to Claim 1 is found throughout the originally filed application. See, for example the sentences appearing in the Field of the Invention section of the originally filed application. Further support for the aforementioned amendment to Claim 1 is found in original Claim 2. Since the subject matter of Claim 2 has been added to Claim 1, Claim 2 is redundant. Applicants thus have cancelled Claim 2 in this Response.

Applicants have also amended Claim 11 by changing the dependency of the claim from itself to Claim 1.

Since none of the above-mentioned amendments to the claims adds new matter into the originally filed application, entry thereof is respectfully requested.

Claims 1-7 and 10 stand rejected under 35 U.S.C. § 103 as allegedly unpatentable over the combined disclosures of U.S. Patent No. 3,985,595 to Benziger ("Benziger") and U.S. Patent No. 6,547,899 to Lee et al. ("Lee et al.").

Applicants respectfully submit that the claims of the present application are not rendered obvious by the combined disclosures of Benziger and Lee et al. Specifically, the combined disclosures of Benziger and Lee et al. do not teach or suggest a process for producing *an insensitive explosive mixture* which includes a step of depositing sonochemically aminated 1,3,5-triamino-2,4,6-trinitrobenzene (TATB) *in an amount of less than 15 % by weight* onto secondary explosive crystals.

Benziger provides a highly insensitive and heat resistance plastic-bonded explosive which includes 90 weight % TATB and 10 weight % of a fully saturated copolymer of chlorotrifluoroethylene and vinylidene fluoride. This prior art explosive is made utilizing a slurry process. Applicants observe that Benziger indicates in Col. 6 that a TATB content of 0 to 20 weight % is possible as well as a TATB content of 40 weight %. Applicants observe that although various amounts of TATB are disclosed in Benziger, the applied reference suggests that the amount of TATB present in the explosive effects the sensitivity of the same. For example, Benziger discloses that the explosive containing 0 to 20 weight % of TATB was sensitive as indicated by the skid test in which it was reported that at 50 % height the explosive containing 0 to 20 weight % TATB exhibited an explosive reaction within a few feet, while the explosive containing 40 weight % TATB was not sensitive as indicated by that the fact that no explosive reaction was observed with drops as high as 64 ft. Applicants thus observe that Benziger

discloses that for the explosive to be considered *insensitive* the amount of TATB is 40 weight % or greater. Below this range, a sensitive explosive is made.

In addition to the above, Benziger does not teach or suggest utilizing sonochemically aminated 1,3,5-triamino-2,4,6-trinitrobenzene (TATB), let alone that the same is deposited in an amount of 15 weight % or less onto secondary explosive crystals to produce an insensitive explosive composition.

Lee et al. does not alleviate the above defect in Benziger since the applied secondary reference also fails to teach or suggest a process for producing *an insensitive explosive mixture* which includes a step of depositing sonochemically aminated 1,3,5-triamino-2,4,6-trinitrobenzene (TATB) *in an amount of less than 15 % by weight* onto secondary explosive crystals. Lee et al. provides a method for forming fine TATB powder using ammonium hydroxide solution and ultrasonic irradiation. The applied secondary reference, however, does not teach or suggest that an insensitive explosive composition can be prepared by depositing the sonochemically aminated TATB in the claimed amount onto secondary explosive crystals. This aspect of the claimed invention is not taught or suggested in Lee et al.

In view of the above remarks, the rejection of Claims 1-7 and 10 under 35 U.S.C. § 103 citing the combination of Benziger and Lee et al. has been obviated. Reconsideration and withdrawal thereof are respectfully requested.

The § 103 rejection also fails because there is no motivation in the applied references which suggest modifying the disclosed compositions to include the various elements recited in the claims of the present invention. Thus, there is no motivation provided in the applied references, or otherwise of record, to make the modification mentioned above. "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the

modification obvious unless the prior art suggested the desirability of the modification." In re Vaeck, 947 F.2d, 488, 493, 20 USPQ 2d. 1438, 1442 (Fed.Cir. 1991).

The rejection under 35 U.S.C. § 103 has been obviated; therefore reconsideration and withdrawal thereof are respectfully requested.

Thus, in view of the foregoing amendments and remarks, it is firmly believed that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



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